Massachusetts Department of Public Health
Massachusetts Immunization Program (MIP)

MODEL STANDING ORDERS

Hepatitis A Vaccine, Inactivated

These model standing orders are current as of January 2004. They should be reviewed carefully against the most current recommendations and may be revised by the clinician signing them.

Hepatitis A vaccination is <u>indicated</u> for preexposure protection from hepatitis A virus (HAV) infection for susceptible persons ≥ 2 years of age in the following groups:

- Persons traveling to, or working in, countries that have high or intermediate endemicity (Asia [excluding Japan], Africa, Central and South America, the Caribbean, Greenland, and Eastern Europe). The vaccine should be administered ≥ 1 month prior to travel.
- Men who have sex with men
- Users of injecting and noninjecting illegal drugs
- Persons who have clotting factor disorders
- Persons who have chronic liver disease
- Persons who have occupational risk for infection (work with HAV-infected primates or with HAV in a research laboratory setting)
- Persons in communities where HAV outbreaks occur (if local epidemiological data indicate it is feasible)
- Children who live in states, counties, or communities with high rates of HAV infection (e.g., the average annual HAV infection rate during 1987-1997 was ≥ 20 cases per 100,000 population, or approximately twice the national average)

Hepatitis A vaccination may be <u>considered</u> for preexposure protection from HAV infection in susceptible persons ≥ 2 years of age in the following groups:

- Persons who work in food-service establishments or who are food handlers (if local epidemiological data determine it is cost effective)
- Child care center staff and attendees with ongoing or recurrent outbreaks (if indicated by local epidemiological data)
- Children who live in states, counties or communities with intermediate rates of HAV infection (e.g., the average annual rate of HAV infection during 1987-1997 was 10 – 19 cases per 100,000 population, or approximately the national average
- Any person wishing to obtain immunity

ORDER:

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1. Provide patient, parent or legal representative with a copy of the Vaccine Information Statement (VIS) and answer any questions.
2. Screen for contraindications according to Table 1.
3. Give the correct dose of hepatitis A vaccine intramuscularly (IM) according to the recommended schedule (see Table 2) **Always check the package insert prior to administration of any vaccine**. Administer IM vaccines at a 90^{o} angle with a 22- to 25-gauge needle.
   a. Toddlers (≥ 2 years of age) and older children: Administer in to the anerolateral aspect of the thigh or deltoid, using a 7/8- to 1¼-inch needle, depending on the size of the muscle. For toddlers, you can use the anterolateral thigh, but the needles should be longer, usually 1 inch. The deltoid is preferred for immunization of adolescents.
   b. Adolescents and young adults (≤ 18 years of age): Administer in the deltoid using a 1- to 2-inch needle, depending on the vaccine recipient's weight (1 inch for females < 70 kg; 1.5 inches for females 70-100 kg; 1 to 1.5 inches for males ≤ 120 kg; and 2 inches for males > 120 kg and females > 100 kg).
   c. Adults > 18 years of age: Administer in the deltoid using a 1- to 2-inch needle, depending on the vaccine recipient's weight (1 inch for females < 70 kg; 1.5 inches for females 70-100 kg; 1 to 1.5 inches for males ≤ 120 kg; and 2 inches for males > 120 kg and females > 100 kg).
4. Administer hepatitis A vaccine simultaneously with all other vaccines indicated according to the recommended schedule and the patient's current vaccine status.
5. If possible, observe patient for an allergic reaction for 15 - 20 minutes after administering vaccine.
6. Facilities and personnel should be available for treating immediate hypersensitivity reactions.
7. Report clinically significant adverse events to the Vaccine Adverse Event Reporting System (VAERS) at 1-800-822-7967, or via the VAERS website: www.vaers.org.
8. Please see the MIP document, *General Protocols for Standing Orders*, for further recommendations and requirements regarding vaccine administration, documentation, and consent.

Table 1. Contraindications and Precautions to Hepatitis A Vaccine

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Valid Contraindications to Hepatitis A Vaccine	Invalid Contraindications (hepatitis A vaccine should be administered)
Anaphylactic reaction to previous dose of hepatitis A vaccine, alum, 2-phenoxyethanol (Havrix® only)[1], neomycin (Havrix® only), latex (VAQTA® only)[2], or to any other component of the vaccine (see package insert for specific components)[3]	Mild illness with or without low-grade fever
	Non-anaphylactic allergy to any component for the vaccine
	Local reaction to a previous dose of hepatitis A vaccine
	Immuosuppression
Precautions to Hepatitis A Vaccine: • Moderate-to-severe acute illness, with or without fever (temporary precaution) • Pregnancy[4]	Personal or family history of non-specific allergies
	Current antimicrobial therapy

[1] Persons with a hypersensitivity to 2-phenoxyethanol should receive VAQTA®, the Merck preparation, which does **not** contain 2-phenoxyethanol.
[2] Persons with hypersensitivity to latex should receive Havrix®, the SmithKline Beecham preparation, which does **not** contain latex.
[3] Persons with a history of anaphylaxis to a vaccine component, but who are at high risk for hepatitis A disease, should be referred to a health care provider for evaluation and possible administration of hepatitis A vaccine.
[4] Hepatitis A vaccine should be considered for pregnant women at increased risk for hepatitis A infection.

Table 2. Recommended Dosages and Schedule for Hepatitis A Vaccine

Age (Years)	Dose (Units)		Volume (mL)	No.of Doses[3,4]	Schedule (Months)[4]
	Havrix®[1]	VAQTA®[2]			
2 - 18	720	25	0.5	2	0, 6-12
> 18	1,440	50	1.0	2	0, 6-12

[1] Hepatitis A vaccine, inactivated, SmithKline Beecham
[2] Hepatitis A vaccine, inactivated, Merck & Co., Inc.
[3] Travelers should receive the 1st dose $\geq$ 4 weeks prior to travel.
[4] Two doses are needed for lasting protection.

Travelers

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Vaccine

Travelers who are administered the vaccine should receive the first dose ≥ 4 weeks prior to travel. Studies show that only 55 – 60% of vaccine recipients have protective antibodies at 2 weeks post vaccine. Persons traveling to high-risk areas < 4 weeks after the initial dose should be administered IG (see paragraph below), but at a different anatomic injection site. A second dose of vaccine 6-12 months later is necessary for long-term protection.

IG

Travelers who are allergic to a vaccine component, whose time prior to departure is < 4 weeks, or who elect not to receive the vaccine, should receive IG.

- If the travel period is < 3 months in duration, travelers should receive a single dose of IG (0.02 mL/kg), which provides protection against hepatitis A for up to 3 months.
- If the travel period is ≥ 3 months in duration, travelers should receive IG at 0.06 mL/kg, which provides protection for up to 5 months. At this time, administration of IG must be repeated.

Pre- and Post-Vaccination Serologic Testing for Susceptibility

1. Prevaccination testing of children is not indicated because of their expected low prevalence of infection. Prevaccination may be cost effective when the prevalence of hepatitis A virus infection is > 33%. Persons for whom testing might be indicated include:

- adults who are either born in, or lived for extensive periods in, geographic areas with high endemicity of HAV infection;
- older adolescents and adults in certain population groups (i.e., Native Americans, Alaskan Natives, and Hispanics);
- adults in certain groups that have a high prevalence of infection (see above); and
- adults > 40 years of age.

2. Postvaccination testing is *not* indicated because of the high rate of vaccine response among adults and children.

References:

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ACOG (American College of Obstetricians and Gynecologists). Immunization During Pregnancy. ACOG Committee Opinion No. 282, January 2003.

American Academy of Pediatrics. Active and Passive Immunization. Hepatitis A. Immunization in Special Clinical Circumstances. Standards for Child and Adolescent Immunization Practices (Appendix II). In Pickering LK, ed. *Red Book: 2003 Report of the Committee on Infectious Diseases*. 26th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2003: 7-53, 53-63, 309-318, 66-93, 795-798.

CDC. *Epidemiology and Prevention of Vaccine-Preventable Diseases (The Pink Book).* 8th ed. Atlanta, Georgia: Department of Health and Human Services; 2004.

CDC. General recommendations on immunization: recommendations of the Advisory Committee on Immunization Practices (ACIP) and the American Academy of Family Physicians (AAFP). MMWR 2002; 51 (No. RR-2):1-35.

CDC. Guide to contraindications to vaccinations. U.S. Department of Health & Human Services, September 2003.

CDC. Prevention of hepatitis A through active or passive immunization: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 1999;48 (No. RR-12):1-38.

CDC. Recommended adult immunization schedule – United States, 2003-2004. MMWR 2003;52:965-969.

CDC. Recommended childhood and adolescent immunization schedule - United States, Jan – June 2004. MMWR 2004;53:Q1-Q4.

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National Vaccine Advisory Committee. Standards for child and adolescent immunization practices. Pediatrics 2003;112:958-963.

Poland GA, Shefer AM, McCauley M, Webster, PS, Whitley-Williams PN, Peter G, and the National Advisory Committee. Standards for adult immunization practices. Am J Prev Med 2003;25:144-150.

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